

# Building Pontoons in a Graving Dock

A "graving dock" is a large dock from which water can be pumped out. It is traditionally used for building ships or for repairing a ship below its waterline. WSDOT and Kiewit-General are constructing the new east-half Hood Canal Bridge pontoons at the Concrete Technology graving dock in Tacoma, Wash. It will take four pontoon construction cycles to build all 14 pontoons in the 150-foot wide by 465-foot long graving dock. Here is how the process works:

- 1** Empty all water from graving dock
- 2** Build pontoons
- 3** Attach flexi floats. The flexi floats help the pontoons detach from the graving dock floor and give the pontoons extra buoyancy to float out of the shallow graving dock.
- 4** Open the valve on the gate at low tide. As the tide rises, the graving dock fills with water.
- 5** Float the gate out of the way with a tug boat.
- 6** Pull the pontoons out of the graving dock with tug boats.
- 7** Remove flexi floats and float all three pontoons to mooring facility in the Seattle area, awaiting pontoon outfitting and assembly.
- 8** Repeat process for cycle 2 (5 pontoons), cycle 3 (4 pontoons) and cycle 4 (2 pontoons). All the pontoons will be floated in three larger sections to the bridge site in May-June 2009. The bridge will be closed to traffic during that time.



## Hood Canal Bridge East-half pontoons are being built in four cycles

